Bibliography of the Anurans of the United States and Canada

Part 1: 1698–2012. Part 2: 2013–2021

C. Kenneth Dodd, Jr.

Bibliography of the Anurans

Wahlgreniana 2

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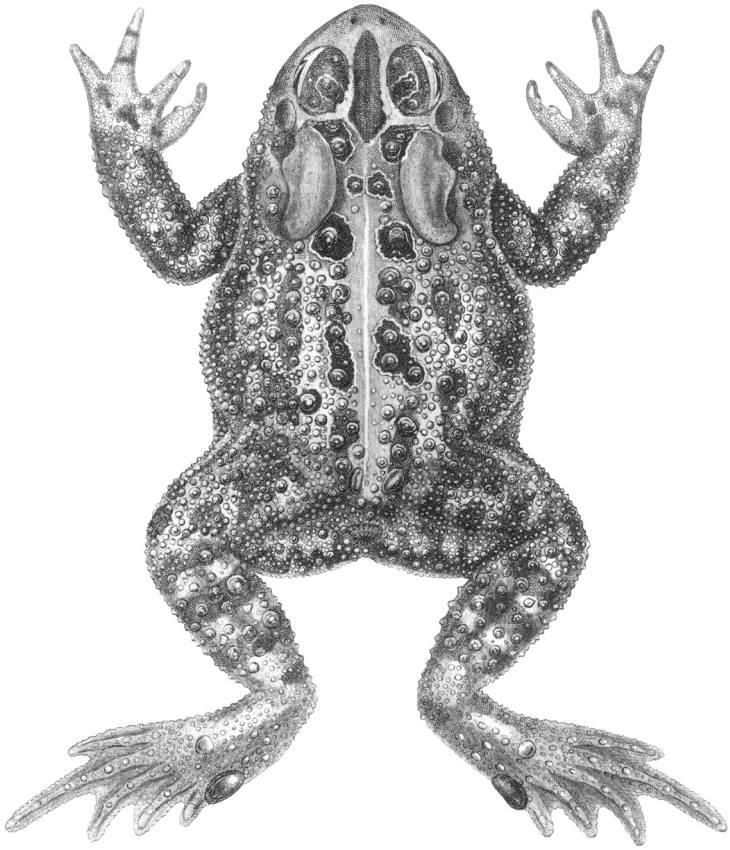

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Wahlgreniana is named in honor of Richard Wahlgren (1946–2019) A founding member and first Chairman of the *International Society for the History and Bibliography of Herpetology*. Without Richard's tireless dedication to ISHBH, the society could not have made it through its early years. *Wahlgreniana* is a series of book length works complementing the ISHBH journal, *Bibliotheca Herpetologica.* Books in this series are published on an irregular basis and are sold separately from ISHBH subscriptions.

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Foreword

There is a lengthy pedigree of documented concerns about the proliferation of scientific literature and the consequent difficulty in 'keeping current,' especially for readers (and writers) with broad interests. Among my favorite of such lamentations is that of Charles Maynard (1889) decrying the need for his readers to subscribe to "half a dozen" society publications in order to keep track of his writings. His solution to the problem was the simple expedient of privately publishing his own journal to concentrate his writings and place them in aggregated form into the hands of his readers. Well and good for his contemporaries, but original copies of Maynard's *Contributions to Science* are now difficult (a possible euphemism for 'impossible') to find. His ideas and data have been rescued in our digital age by reprinted versions available, at least occasionally, via Amazon and other sources.

The passage of time has not ameliorated Maynard's concerns about the proliferation of outlets for scientific research. Every year brings more and more information into the world of scientific scholarship. By the turn of the 21st century it had become extraordinarily difficult to 'keep up' with information relevant to scholars pursuing even a focused research project. The problem becomes particularly acute for those with broad interests that extend across traditionally recognized boundaries. Almost 20 years ago Aaron Bauer (pers. com., August 2022) made an effort to estimate the number of post-Linneaus journals that at least occasionally carried articles pertaining to natural history; he landed on the jaw-dropping figure of approximately 250,000! Even for the (relatively) focused community of herpetologists there is now a plethora of serial publications that regularly contain content about amphibians and reptiles, ranging from titles exclusively dedicated to herpetology, to those with a regional or taxonomic focus, to titles dedicated to general natural history or science for which herpetology constitutes an important component of the content. Navigating all of this remains a challenge, despite the many tools now available to help with awareness of, and access to, the voluminous literature in herpetology.

Although private publication was, and to some degree still is, an option, more prevalent (and longer-lasting) solutions included the preparation of the annual and/or periodic index to contents of serial publications, and bibliographies of titles that were collated and proffered by dedicated scholars in the hopes of facilitating access to the literature pertinent to a particular topic. Apart from the collected works of an author presented in a Festschrift or obituary, printed and online bibliographies are no longer common, but they remain quite helpful. The increasingly prevalent attitude that 'it's all online' has been expressed in my hearing at least since the early 1990s when the Society of Vertebrate Paleontology moved to kill the nearly 70-year run of the invaluable *Bibliography of Fossil Vertebrates*. At that time there was certainly not anything even approximating truth in the claim that it was 'all online' but with every passing year, the claim more closely approaches some form of reality; much more is now online now than it was then. That reality facilitates *access* for some scholars, especially those from wealthy nations or institutions. But not all scholars are as well served because access to online resources remains a challenge in many countries, especially those without consistent or reliable access to electricity, and many academic institutions even in wealthy nations do not pay for access to content that is, technically, online. I am, therefore, delighted that this current compilation has options for both print and electronic access. To some degree online availability also helps with *awareness*, especially if the scholar is careful with keyword selection for searches, is attuned to various stumbling blocks that can impair a successful search and participates in the various options that provide notification of journal contents, or platforms that allow scholars to share their newly published works online.

But *awareness* is tricky. What if the target of interest is a detailed overview of a broad and complex topic encompassing over 300 years of scholarship and published literature? Needs such as those are best addressed by bibliographies such as this one, which remain a valuable starting point for broad overviews. As concentrated summations of information on a focused topic, works such as this remain valuable tools for serious established scholars as well as those with a budding interest in the topic. Such a need arose somewhat unexpectedly in the late 1980s with the recognition that amphibian populations were declining across the globe. That stimulated

a surge in research on amphibians and a search for causes of declines. In addition to data on population status and basic information about the natural history of species, their population biology, their significance in ecosystems, and anthropogenic influences on populations were emphasized as important and relevant data (Wake and Morowitz, 1991). The need for those data certainly contributed to the increase in annual publications about anuran natural history noted in the introductory paragraphs herein.

Ken Dodd has drawn from decades of experience (who's counting how many?) with herpetological literature to compile a record of published material pertaining to the broad topic of 'the natural history of anurans in the United States and Canada.' This is not his first foray into bibliographic documentation. In addition to the excellent bibliographies in his books he has also produced bibliographic summations of anuran defensive mechanisms (Dodd, 1975), endangered and threatened amphibians and reptiles in the United States (Dodd, 1979, 1981), primary literature on the loggerhead sea turtle (Dodd, 1987), and the herpetofauna of Florida (Enge and Dodd, 1986, 1992). Much of the content of this current effort appeared in his 2013 compilation on anurans of the United States and Canada, but this is a much-expanded treatment. I confess I have a long-standing fascination with productions like this one. Over the last 25 years I have repeatedly turned to the bibliographies assembled by Domning (1996) and Zhao and Zhao (1994), simultaneously for my own research questions, or those of my students, or to meet a simple urge to satisfy my curiosity on various points. Those works garner few citations in the literature but are of inestimable value to me as sources of information, guideposts to the literature, and stimulants for new questions, thoughts, and explorations.

This compilation on anurans is destined to be another to which I refer often, and I have already benefitted from it. Over 280 pages of literature citations include references to numerous books and monographs, as well as references to papers from over 700 serial publications (ok, I counted). Without overlap, there are 123 *Journals*, 69 *Bulletins*, 38 *Proceedings*, 26 *Naturalists*, 19 *Transactions*, 15 *Occasional Papers*, eight *Magazines*, eight *Reviews*, seven *Annals*, five *Newsletters*, four *Leaflets*, three *Quarterlies*, and two *Applications*. As Dodd notes in his introductory paragraphs, many titles are drawn from journals with long histories of carrying herpetological content. But titles that are well off the beaten path for many herpetologists find a place here as well. As an example, Hall's monograph on Blowflies might not immediately jump to the mind of many students contemplating anuran biology, but an account of parasitism of *Rana catesbeiana* by the fly *Bufolucilia* (now *Lucilia*) *silvarum* appears on p. 218—I *certainly* would have missed this without Ken's guidance. In a separate vein, when I noted the citation to Harlan's 1835 *Medical and Physical Researches*, which I have normally consulted in reference to salamanders or mammals, I was curious about the anuran content… so, I looked. Two prominent examples of its relevance for inclusion here are *Genera of North American Reptilia, and a synopsis of the species* (pp. 84–160; mostly descriptions, but with brief notes on natural history for some species) and *Descriptions of several new species of batrachian reptiles, with observations on the larvae of frogs* (pp. 214–228). So, I learned a bit more about a volume with which I was inadequately familiarized, and that is never a bad thing!

Are there published titles that are not included here? I know the nature of our literature too well to doubt that there are. But that in no way diminishes this work and its significance. Everyone who acquaints themselves with it will find at least a few inducements to seek out particular references and read them. The serious scholar will find much here with which to engage. My somewhat-more-than-casual perusal yielded five citations to papers of immediate interest that I had never seen before, and many titles with which I was unfamiliar. I have been living without the *Proceedings of the Natural History Association of Miramichi* for far too long now, and I have set aside a space on my shelves for the *Proceedings of the Natural Science Association of Staten Island*. So, the hunt is on… and I love the hunt; it is one more gift from the mind, effort, energy, and keyboard of Ken Dodd. I hope that similar discoveries and enjoyment will await any reader of this brief introduction to a masterful compilation of interesting and relevant literature. Happy hunting!

Christopher J. Bell
21 August, 2022

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Abstract

In 2013, I published an extensive bibliography (Dodd 2013a) of the anurans of the United States and Canada based largely upon background material from The Frogs of the United States and Canada (Dodd 2013b). The bibliography was produced with the objective of developing a comprehensive reference to publications on the natural history of North American anurans. It focused on life history, ecology, systematics, behavior, physiological ecology, diseases, parasites, and conservation biology, and included important references on distribution and other topics useful to understanding frogs in their natural environment. Strictly physiological, developmental, and genetics citations were excluded, as were routine new distribution records, especially when life history information was not included. Master's theses and doctoral dissertations were included as they were encountered, but I made no attempt to access all potentially citable graduate research, much of which remains unpublished or unavailable. I also excluded what is popularly termed "gray" literature, as well as most popular and hobbyist publications.

Since the original bibliography (Dodd 2013a), I have made an effort to update references previously omitted because of redundancy, triviality (short notes, especially in the early days of Copeia and Herpetologica), oversight, or because they were published before the end of 2012 but after my frog book had gone to press. I also examined much older and obscure natural histories for references to frogs. As such, I extended the bibliographic references to Gabriel Thomas' (1698) mention of the bullfrog, the earliest reference to a specific species that I encountered. Frogs were often mentioned in early travelogues, but rarely can the species be identified. As previously, I have limited the scope of this updated bibliography to topics that might be termed field ecology or natural history, but that does not mean that highly complex topics, such as molecular biology, population modelling, and laboratory research are excluded; they are all vital to telling us what frogs do in nature and how they do it. Publishing this updated and comprehensive bibliography will allow researchers, students, and naturalists access to a large amount of information that might not be readily available through traditional database searches. Naturally, some publications likely have escaped my notice, despite years of intensive search and cross–referencing. To those authors, I offer my sincere apology.

I especially thank Breck Bartholomew, Christopher Bell, and Aaron Bauer for their comments, suggestions, assistance and patience in making publication of this bibliography a reality.

Composite Bibliographic Trivia

Journals.— The most cited journals involving frog natural history, not surprisingly, are those that have been publishing the longest and that specialize in herpetology: Copeia (now Ichthyology and Herpetology), Herpetological Conservation and Biology, Herpetological Review, Herpetologica, and the Journal of Herpetology. Other journals with substantial numbers of North American frog papers include American Midland Naturalist, Animal Behaviour, Biological Conservation, Canadian Journal of Zoology, Canadian Field-Naturalist, Conservation Biology, Ecology, Environmental Toxicology and Chemistry, Evolution, Northeastern Naturalist, Oecologia, Southeastern Naturalist, Southwestern Naturalist, and Northwestern Naturalist.

Graduate research.— The combined bibliography contains citations for 227 doctoral dissertations and 295 Master's/Honors theses.

Most published authors.— Of course, most herpetologists are interested in taxa besides to frogs, particularly salamanders and non–avian reptiles; few specialize only on frogs. Further, not all citations are of equivalent page length, duration of study, rigor or importance. Given these caveats, the top 10 names in terms of numbers of authored and co–authored papers involving the life history of frogs are: A.N. Bragg, A.R. Blaustein, R.D. Semlitsch, H.C. Gerhardt, S.E. Trauth, R. Relyea, P.S. Corn, B.K. Sullivan, D.M. Green, and W.E. Meshaka, Jr. With the exception of Bragg (d. 1968) and Semlitsch (d. 2015), these biologists remain active in frog research.

Number of publications annually.— Not surprisingly, there has been an explosion in publishing on North American anuran life history since the early 1990s. For example, there were 78–90 papers published annually from 1990–1994, 101–112 from 1995–1997, 140–171 from 1998–2003, 183–217 from 2004–2012, 96–135 from 2013–2020, and 217 in 2021. No doubt, this pace continues.

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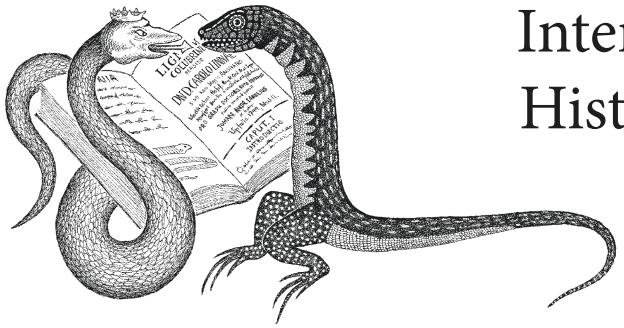

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Mission. The ISHBH aims to promote research related to historical herpetology. The Society is devoted to stimulating and advancing the study of the history of the herpetological discipline and its bibliography. We bring together individuals for whom the history and bibliography of herpetology are appealing. We promote the knowledge of these and related topics among members and the general public. The Society was established in 1998. Membership is open to anyone who shares the aims of the Society.

Activities. The society members meet every year, usually in connection with other general herpetological meetings with international participation. Activities include visits to private and public libraries, museums and other places with historical links to the discipline. We organize workshops and sessions in the fields that form parts of larger national or international meetings on herpetology. Our shared lunches adjacent to the yearly business meetings have become popular among members and guests. The Society works to facilitate both formal and informal contacts among members.

Journal. The ISHBH publishes the journal *Bibliotheca Herpetologica*, which is the central pillar of the Society. It contains articles, essays, bibliographies and news of people and events in our field and is a peer-reviewed. The many important contributions make the publication a vital source for bibliographers, historians and taxonomists alike but at the same time the papers are appealing to the layperson in the field. All issues of *Bibliotheca Herpetologica* are available Open Access on the society website, www.ISHBH.com. A print copy of each volume of *Bibliotheca Herpetologica*, containing all articles published that year, is distributed to current members.

The name of the journal, up to volume 5(1), was: *International Society for the History and Bibliography of Herpetology Newsletter and Bulletin*. All of these issues are also available, Open Access on the society's website.

Wahlgreniana. Beginning 2022, ISHBH began publishing *Wahlgreniana* — A series of book-length works complementing the ISHBH journal, *Bibliotheca Herpetologica*. Books in this series are published on an irregular basis and are sold separately from ISHBH subscriptions, discounted for society members. *Wahlgreniana* is named in honor of Richard Wahlgren (1946–2019) A founding member and first Chairman of the International Society for the History and Bibliography of Herpetology. Without Richard's tireless dedication to ISHBH, the society could not have made it through its early years.

Volume 1—May 2022

Bour, Roger and Josef F. Schmidtler. 2022. *Nikolaus Michael Oppel's Drawings, Watercolors, and Engravings 3. Crocodiles (1807–1817): A comparative study of some historical and recent crocodile illustrations*. ISHBH, Salt Lake City, x, 184 p. Hardcover, ISBN 978-0-578-29399-8. Includes a complete facsimile of Tiedemann, F., M. Oppel & J. Liboschitz 1817. *Naturgeschichte der Amphibien. Erstes Heft. Gattung Krokodil*. Joseph Engelmann, Heidelberg. v–vi, 1–88, vii–viii. Auf Kosten der Verfasser, München, 15 pls. Retail: $65.00; ISHBH members $39.00.

Volume 2—October 2022

Dodd, C. Kenneth, Jr. 2022. *Bibliography of the Anurans of the United States and Canada. Version 3. Part 1: 1698–2012. Part 2: 2013-2021*. ISHBH, Salt Lake City, x, 282 p. Hardcover, ISBN: 979-8-218-06245-3; eBook ISBH: 979-8-218-06246-0. Retail: $35.00; ISHBH members $21.00.

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Addenda & Corrigenda:
Bibliography of the Anurans of the United States and Canada
Part 1: 1698–2012. Part 2: 2013–2021

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International Society for the History
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Corrigenda

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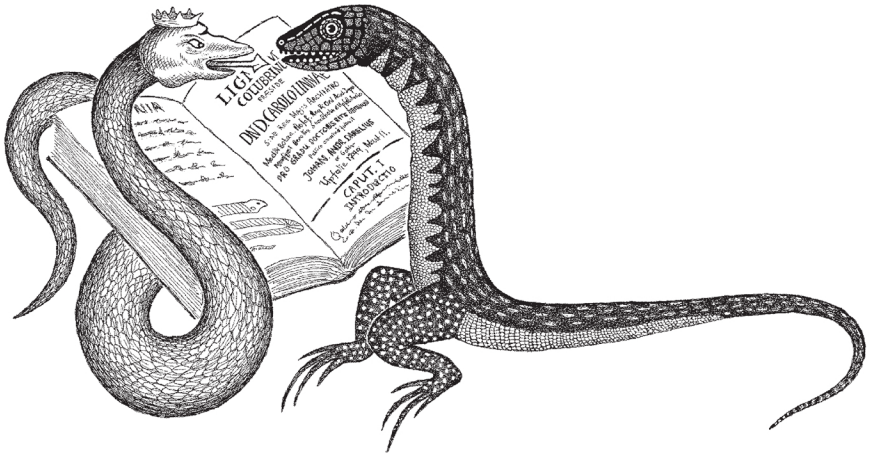

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